# Explanation

\*\*\*Strategic Notes

If the impact cards are still Speth 8, Reilly 2, Djordjevic 98, and Chase-Dunn and Podobnik 99, then this file is 100% ready to go. No need to write out analytics. The answers to his ev are written in.

The one thing you might want to do is spend 5 seconds explicitly conceding util and that the aff collapses the economy.

Not sure how fast you are, but the first priority before the round should be to time this to get an idea of how long it is. I put triple asterisks (\*\*\*) next to the less important cards, so those should be the first things to skip if you’re a bit low on time.

The water wars debate is pretty much unwinnable for the aff. There is such a huge differential in the quality of ev, that it’s not even close. If he’s not stupid, he’ll kick out of water wars in the 1AR. If he doesn’t kick it, you could consider only extending link turns and not impact defense, so that he’s stuck with it in the 2AR. There’s also another link turn to water shortage on the industrial ag section (Osmand and Gale 95).

There are two components of the sustainability/environment debate that you cannot forget about.

First is sustainability uniqueness. If you drop that the squo is unsustainable and extinction is coming now, then you’re kinda boned, so don’t forget to extend uniqueness. The file has both generic “world is getting better” UQ and also specific industrial agriculture ev, which is the scenario referenced by his ev.

Second is alt solvency. Don’t let him get away with explaining how the aff would transition to some magic hippy commune that somehow solves all your offense. There are a lot of cards on the sustainability debate that call into question alt solvency, e.g. that it would be dominated by fascists, or that small farms couldn’t feed everyone. Remember, post-plan, there are still 7 billion people on the planet, but we lack the infrastructure or large farms to feed them all. Not to mention, there is the risk of violent transition wars in the interim.

The soil erosion scenario makes an independent extinction claim that’s pretty isolated from the rest of the debate, so if he doesn’t answer soil erosion, then that’s an easy out.

The last card in the war section is an answer to analytics like “empirically denied; 2008 recession didn’t cause war.” It’s not strictly necessary in the NC, but it would be a good NR answer if the aff makes an argument to that effect.

The 2NR should include either a “war turns environment” or “environment turns war” plus magnitude and/or timeframe weighing. Decide which part of the debate you’re most ahead on, and say that part of the debate outweighs the rest.

But seriously, time the speech.

\*\*\*End of Strategic Notes

# Water Shortage

## Top Level

### All Your Shit is So, So Wrong

#### Growth is sustainable, and water wars aren’t a thing. Every study conclusively goes neg.

Allouche 11

Jeremy Allouche 11 is currently a Research Fellow at the Institute of Development Studies at the University of Sussex. "The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global trade" Food PolicyVolume 36, Supplement 1, January 2011, Pages S3-S8 Accessed via: Science Direct Sciverse

Water/food resources, war and conflict

The question of resource scarcity has led to many debates on whether scarcity (whether of food or water) will lead to conflict and war. The underlining reasoning behind most of these discourses over food and water wars comes from the Malthusian belief that there is an imbalance between the economic availability of natural resources and population growth since while food production grows linearly, population increases exponentially. Following this reasoning, neo-Malthusians claim that finite natural resources place a strict limit on the growth of human population and aggregate consumption; if these limits are exceeded, social breakdown, conflict and wars result. Nonetheless, it seems that most **empirical studies do not support any** of these neo-**Malthusian arguments.** Technological change and greater inputs of capital have dramatically increased labour productivity in agriculture. More generally, the neo-Malthusian view has suffered because during the last two centuries humankind has breached many resource barriers that seemed unchallengeable. Lessons from history: alarmist scenarios, resource wars and international relations In a so-called age of uncertainty, a number of alarmist scenarios have linked the increasing use of water resources and food insecurity with wars. The idea of water wars (perhaps more than food wars) is a dominant discourse in the media (see for example Smith, 2009), NGOs (International Alert, 2007) and within international organizations (UNEP, 2007). In 2007, UN Secretary General Ban Ki-moon declared that ‘water scarcity threatens economic and social gains and is a potent fuel for wars and conflict’ (Lewis, 2007). Of course, this type of discourse has an instrumental purpose; security and conflict are here used for raising water/food as key policy priorities at the international level. In the Middle East, presidents, prime ministers and foreign ministers have also used this bellicose rhetoric. Boutrous Boutros-Gali said; ‘the next war in the Middle East will be over water, not politics’ (Boutros Boutros-Gali in Butts, 1997, p. 65). The question is not whether the sharing of transboundary water sparks political tension and alarmist declaration, but rather to what extent water has been a principal factor in international conflicts. The evidence seems quite weak. Whether by president Sadat in Egypt or King Hussein in Jordan, none of these declarations have been followed up by military action. The governance of transboundary water has gained increased attention these last decades. This has a direct impact on the global food system as water allocation agreements determine the amount of water that can used for irrigated agriculture. The likelihood of conflicts over water is an important parameter to consider in assessing the stability, sustainability and resilience of global food systems. **None of the various and extensive databases on** the **causes of war show water as a casus belli.** Using the International Crisis Behavior (ICB) data set and supplementary data from the University of Alabama on water conflicts, Hewitt, Wolf and Hammer found only seven disputes where water seems to have been at least a partial cause for conflict (Wolf, 1998, p. 251). In fact, about 80% of the incidents relating to water were limited purely to governmental rhetoric intended for the electorate (Otchet, 2001, p. 18). As shown in The Basins At Risk (BAR) water event database, more than two-thirds of over 1800 water-related ‘events’ fall on the ‘cooperative’ scale (Yoffe et al., 2003). Indeed, if one takes into account a much longer period, the following figures clearly demonstrate this argument. According to studies by the United Nations Food and Agriculture Organization (FAO), organized political bodies signed between the year 805 and 1984 more than **3600 water**-related **treaties**, and approximately 300 treaties dealing with water management or allocations in international basins have been negotiated since 1945 ([FAO, 1978] and [FAO, 1984]). The fear around water wars have been driven by a Malthusian outlook which equates scarcity with violence, conflict and war. There is however no direct correlation between water scarcity and transboundary conflict. Most specialists now tend to agree that the major issue is not scarcity per se but rather the allocation of water resources between the different riparian states (see for example [Allouche, 2005], [Allouche, 2007] and [Rouyer, 2000]). Water rich countries have been involved in a number of disputes with other relatively water rich countries (see for example India/Pakistan or Brazil/Argentina). The perception of each state’s estimated water needs really constitutes the core issue in transboundary water relations. Indeed, whether this scarcity exists or not in reality, perceptions of the amount of available water shapes people’s attitude towards the environment (Ohlsson, 1999). In fact, some water experts have argued that scarcity drives the process of co-operation among riparians ([Dinar and Dinar, 2005] and [Brochmann and Gleditsch, 2006]). In terms of international relations, the threat of water wars due to increasing scarcity does not make much sense in the light of the recent **historical record**. Overall, the water war rationale expects conflict to occur over water, and appears to suggest that violence is a viable means of securing national water supplies, an argument which is highly contestable. The debates over the likely impacts of climate change have again popularised the idea of water wars. The argument runs that climate change will precipitate worsening ecological conditions contributing to resource scarcities, social breakdown, institutional failure, mass migrations and in turn cause greater political instability and conflict ([Brauch, 2002] and [Pervis and Busby, 2004]). In a report for the US Department of Defense, Schwartz and Randall (2003) speculate about the consequences of a worst-case climate change scenario arguing that water shortages will lead to aggressive wars (Schwartz and Randall, 2003, p. 15). Despite growing concern that climate change will lead to instability and violent conflict, the evidence base to substantiate the connections is thin ([Barnett and Adger, 2007] and [Kevane and Gray, 2008]).

## Link Turns

### AT: Speth 8

His water wars link card is about population growth, not economic growth.

It’s also not reverse causal. Even if he wins that growth caused water shortage, that doesn’t mean economic collapse will solve it. Speth cites factors like species extinction, which obviously can’t be reversed.

### Desalination

#### Growth drives rapid advancement in desalination tech, which solves the water shortage

**SBI 11**

[SBI Energy, a division of MarketResearch.com, publishes research reports in the industrial, energy, building/construction, and automotive/transportation markets, “Global Desalination Market will Grow 320.3% by 2020, Driven by Reverse Osmosis,” August 23, <http://www.sbireports.com/about/release.asp?id=2267>]

Depleting water supplies, coupled with increasing water demand, are driving the global market for desalination technology, which is expected to reach $52.4 billion by 2020, **up 320.3%** from $12.5 billion in 2010. According to a recent report from energy research publisher SBI Energy, membrane technology reverse osmosis will see the largest growth, reaching $39.46 billion by 2020. The increasing world population, which is estimated to reach 7.52 billion by 2020, up from 6.85 billion in 2010, is depleting a limited fresh water supply with agricultural demands and urbanization leading to more water consumption per person across the globe. According to the report, industrialization is spreading advanced water extraction technology, which is quickly diminishing water resources. "**Economic and population growth are the largest drivers for desalination tech**nology," said Shelly Carr, publisher of SBI Energy. "The explosive growth of this market is due to a solution-based alternative to the diminishing supply of the world's most important resource." Desalination technology involves extracting salt and other unwanted minerals from saltwater or brackish water in order to produce fresh water. There are two types of technologies: thermal which relies on heat, and membrane which utilizes semi-permeable membranes to separate salt from seawater and brackish water. According to the report, the cost of desalination is highly influenced by the amount of energy consumed, causing energy efficient membrane technologies, specifically reverse osmosis, to be the most viable option. "The lower operating costs of membrane technologies, which include reverse osmosis, microfiltration, ultrafiltration and nanofiltration, make them a more attractive option," notes Carr. "This segment will grow significantly more than its thermal counterpart." SBI Energy's report, World Desalination Components and Technologies, provides segmented market data for desalination technologies, exhibiting where the growth will occur through 2020. It profiles fifteen major companies, examines major projects and positions of specific countries, and analyzes trends and growth drivers. It is available at: <http://www.sbireports.com/redirect.asp?progid=82216&productid=6281776>.

### Trade Solves

#### Global trade solves water wars; it allows diversification and imports which checks any risk of conflict

Wendy Barnaby 9 is editor of People & Science, the magazine published by the British Science Association "Do nations go to war over water?" Nature 458, 282-283 (19 March 2009) www.nature.com.turing.library.northwestern.edu/nature/journal/v458/n7236/full/458282a.html

Allan's earlier thinking about water wars began to change after meeting the late Gideon Fishelson, an agricultural economist at Tel Aviv University, Israel. Fishelson argued that it is foolish for Israel, a water-short country, to grow and then export products such as oranges and avocados, which require a lot of water to cultivate. Fishelson's work prompted Allan to realize that water 'embedded' in traded products could be important in explaining the **absence of conflict over water** in the region. As a global average, people typically drink one cubic metre of water each per year, and use 100 cubic metres per year for washing and cleaning. Each of us also accounts for 1,000 cubic metres per year to grow the food we eat. In temperate climates, the water needed to produce this food is generally taken for granted. In arid regions, Allan described how people depend on irrigation and imported food to fulfill these needs. Imported food, in particluar, saves on the water required to cultivate crops. The relationship of food trade to water sustainability is often not obvious, and often remains invisible: no political leader will gain any popularity by acknowledging that their country makes up the water budget only by importing food. Allan saw through this to document how the water budgets of the Middle East were **accounted for without conflict**. Allan wrote about embedded water for a few years without it exciting any comment. Then, on a dark Monday afternoon in November 1992, during a routine SOAS seminar, somebody used the term 'virtual' water to describe the same concept. Allan realized this attention-grabbing word, in vogue with the computer-literate younger generation, would catch on better than his own term. And he was right: "From there on it flew," he says. Allan's work explained how, as poor countries diversify their economies, they turn away from agriculture and create wealth from industries that use less water. As a country becomes richer, it may require more water overall to sustain its booming population, but it can afford to import food to make up the shortfall5. **Areas seemingly desperate for water arrive at sustainable solutions thanks to the import of food, reducing the demand for water and giving an invisible boost to domestic supplies**. Political leaders can threaten hostile action if their visible water supplies are threatened (a potentially useful political bluff), **while not needing to wage war** thanks to the benefits of trade.

## Impact D

### \*\*\*Empirics

#### \*\*\*Water wars will never, ever happen

**Null 12**

[Schuyler, researcher at Woodrow Wilson Center’s Environmental Change and Security Program, a nonpartisan research organization, “Move Beyond “Water Wars” to Fulfill Water’s Peacebuilding Potential, Says NCSE Panel,” 1-26-12 http://www.newsecuritybeat.org/2012/01/move-beyond-water-wars-to-fulfill-waters-peacebuilding-potential-says-ncse-panel/]

Carl Bruch, who co-directs international programs at the Environmental Law Institute, started by saying history shows that inter-state “water wars” are “highly unlikely.” He pointed to Aaron Wolf’s and Peter Gleick’s work cataloguing the role of water in conflict throughout human history that shows it is difficult to find even a single conflict that was fought solely over the fundamental resource. For example, climate change may bring changes in rainfall, and some studies have found a correlation between lack of rainfall and conflict, but there is no causation, said Bruch. “It’s a question of governance,” he said. If lack of rainfall caused conflict, there would have been war across the Sahel in 2003; instead, it only happened in Darfur, which lacked a government able to deal with the challenge (similar observations have been made about the relationship between drought and famine in the Horn of Africa).

### Co-op Solves

#### Overwhelming empirics show that water scarcity leads to co-operation, not conflict

**Conca 12**

<Ken Conca 2012, professor at American University's School of International Service, where he directs the Global Environmental Politics Program, "Decoupling Water and Violent Conflict," Fall, Issues in Science & Technology, Vol. 29 Issue 1, Academic Search Premier>

The good news is that although countries may sometimes use bellicose rhetoric when discussing water supplies, there are no significant examples in the historical record of countries going to war over water. The most comprehensive study to date, which looked at water-related events in shared river basins during the second half of the 20th century, found that cooperative events, such as treaties, scientific exchanges, or verbal declarations of cooperation, outnumbered instances of conflict, such as verbal hostility, coercive diplomacy, or troop mobilization, by roughly two to one; and that even the most severe episodes of conflict stopped short of outright warfare. Moreover, when conflict episodes did occur, they were typically not the result of water scarcity. Rather, the key factor was the inability of governments to adapt to rapid changes, such as when part of a country split off to become a new one or when a decision to build a large dam was made without consulting downstream neighbors. The reasons for the lack of violent conflict are not surprising: War between nations is an increasingly rare event in world politics, water relations are embedded in broader relations between countries, and there are far less costly alternatives than war to improve water availability or efficiency of use. Well-designed cooperative agreements can go a long way toward managing shared rivers in a fair and peaceful manner.

### AT: Reilly 2 / InTheseTimes.com

His impact ev is unwarranted and utterly unqualified. It’s an editor at a minor newspaper, who’s hyping her conclusions to generate page-views.

#### His author cites Shiva; she’s a hack

DeGregori 3

DeGregori, professor of economics at the University of Houston, 2003, (Thomas R., “Shiva the Destroyer?,” http://www.butterfliesandwheels.com/articleprint.php?num=17)

**Contradictions and mistakes are all too prevalent in the work of Shiva** and those who revere her. For example, in a public lecture in Toronto, Canada, she claimed both that the price level of food in India was doubling and that it was falling. Arguing that the technologies of the Green Revolution have failed, she has the price of food in India doubling so that consumers can no longer afford it. But when she wishes to criticize the United States for "dumping" food on the Indian market, pushing Indian farmers to commit suicide, she claims that subsidized foreign food is "driving down prices" (O'Hara 2000 and Oakley 2000). The following excerpt from a news item on Shiva's visit to Houston in the October of 2000 is indicative. Shiva appears not to know the difference between a field of rice and one of weeds. Shiva walked across the road and looked out into a shaggy field. "**They look unhappy**," **she said**. "**The rice** plants. Ours at home look very happy." "That," RiceTec reports, "is because **it's not rice**. That's our test field, it was harvested in August. **That's weeds**" (Tyer 2000).

### Prefer Studies

#### Prefer studies over shoddy journalism; my authors would get fired if they published half the nonsense his authors spout

Wendy Barnaby 9 is editor of People & Science, the magazine published by the British Science Association "Do nations go to war over water?" Nature 458, 282-283 (19 March 2009) www.nature.com.turing.library.northwestern.edu/nature/journal/v458/n7236/full/458282a.html

Yet **the myth of water wars persists**. Climate change, we are told, will cause water shortages. The Intergovernmental Panel on Climate Change estimates that up to 2 billion people may be at risk from increasing water stress by the 2050s, and that this number could rise to 3.2 billion by the 2080s7.

Water management will need to adapt. But the mechanisms of **trade**, international agreements and **economic development** that currently ease water shortages will persist. Researchers, such as Aaron Wolf at Oregon State University, Corvallis, and Nils Petter Gleditsch at the International Peace Research Institute in Oslo, point out that **predictions of armed conflict come from the media** and from popular, **non-peer-reviewed work.**

# Sustainability

## UQ – Sustainable

### World Good

#### Uniqueness decisively goes neg – the state of the world has never been better by every measure

**Dean** 10/16/**14**—philosopher and science writer, check out all the people he cites!

(Tim, “Cheer up, it’s not all doom and gloom”, <http://www.abc.net.au/news/2014-10-16/dean-cheer-up-its-not-all-doom-and-gloom/5818302>, dml)

With each year that goes by, the world is becoming a safer, richer and generally better place to live. So instead of looking at the headlines and losing hope, we can look at them as challenges to be solved, writes Tim Dean. Don't let the bleak news headlines fool you. The future is looking bright, and no amount of haemorrhagic fever outbreaks, militant religious fanaticism, crackdowns on pro-democracy protesters or doomsaying about the global economy ought to turn your smile upside down. In fact, now is a great time to be an optimist about the future. With each year that goes by, the world is becoming a safer, richer and generally better place to live. And this is true according to **almost any metric** you choose to look at. Let's start with violence. While it might seem that the world is as dangerous a place as it has ever been, with wars both civil and uncivil abroad, "coward punches" and domestic violence at home, and the spectre of terrorism spreading fear throughout, the fact is there is less violence in the world today than at any other point in history. According to the World Health Organisation, about 1.6 million people lost their lives to violence in the year 2000. That's a gut-wrenching figure. However, it needs to be put in perspective. The global population in 2000 was about 6 billion. That means less than 0.03 per cent of people - or fewer than 27 people per 100,000 - died from violence in that year. That's not so appalling when you consider that somewhere around 15 per cent of people in ancient hunter-gatherer societies died a violent death, and that figure was still about 3 per cent for the first half of the 20th century, including the two major world wars. As Harvard psychologist Steven Pinker argued in his recent book, The Better Angels of Our Nature, even wars today are less deadly than they once were: The number of people killed in battle - calculated per 100,000 population - has dropped by 1000-fold over the centuries as civilizations evolved. Before there were organized countries, battles killed on average more than 500 out of every 100,000 people. In 19th century France, it was 70. In the 20th century with two world wars and a few genocides, it was 60. Now battlefield deaths are down to three-tenths of a person per 100,000. Every violent death is a tragedy, but the very fact that we are so outraged at incidences of violence today shows that most people no longer regard it as a viable solution to our disagreements. That's progress. What about poverty? Here the story is even more rosy. While there can be no doubt that millions of people continue to live in states of abject poverty, their numbers are declining at a **startling rate** in most regions around the world. A recent United Nations report stated, "Extreme poverty rates have fallen in **every developing region**, with one country, China, leading the way ... Poverty remains widespread in sub-Saharan Africa and Southern Asia, although progress in the latter region has been **substantial**." Speaking of Africa, a continent that is often perceived as being doomed to corruption and poverty, there the transformation has been profound. Africa is entering a new era of burgeoning prosperity, much like South-East Asia did in the 1990s. Not only are African economies growing rapidly, but the wealth is actually reaching the poor. In fact, by some accounts, the entire African continent (except for a couple of holdouts) may achieve the Millennium Development Goals to eradicate extreme poverty and hunger this year, which is one year ahead of schedule. In terms of our wealth, well, we really have nothing to complain about. Despite all the whinging about rising cost of living, most of these costs are discretionary (although many people strangely continue to feel that a crippling mortgage is somehow obligatory). The average income in Australia has risen dramatically over the past few decades. In 2000, the average pay was $33,769. In 2013 it was more like $58,000. That's a 19 per cent pay rise, even after adjusting for inflation. Oh, and that recent bout of doom and gloom from the International Monetary Fund amounts to a small reduction in the forecast economic growth that the world ought to enjoy over the next few years. Getting wealthier, albeit slightly more slowly, isn't what a lot of people would consider terrible news. OK, what about the environment? Surely the spectre climate change is of real concern? Well, it is. But even there progress is being made. In terms of carbon emissions, we continue to pump out CO2 at record rates, with most of the growth in emissions coming from China. However, the European Union, United States and other OECD countries have actually **seen emissions decline** over the past several years. China remains somewhat bullish about its right to emit carbon to fuel its return to be an economic power, but it is also acutely aware of the risks from pollution and carbon emissions and is aiming for a lower carbon future. China has already invested billions in low-carbon technologies, from ultra-supercritical coal-fired power stations to thorium nuclear to solar power. If a few more major economies (including Australia) sign up for a carbon price, it seems likely that China will jump on board too. Another positive sign is that world economic growth has recently "**decoupled**" from carbon emissions. This has proven that economies can grow **without needing** to fume **more CO2** into the atmosphere, thus removing another barrier to going renewable. In the long term, we also have the prospect of limitless clean energy thanks to fusion power. It'll likely take decades to come to fruition, but when it arrives, it could **radically transform our energy landscape** and even help **alleviate** some of the effects of **climate change**, such as by using our abundant electrons to power atmospheric carbon scrubbers or to run desalination plants. We just have to make it to 2050 or so without totally wrecking the climate, and we stand a good chance getting through this thing **without** suffering **catastrophic** global **warming**. And I haven't even touched on how our triumph over disease doubled life expectancy from 40 to 80, or how infant mortality rates continue to decline worldwide, or how increased automation and machine intelligence could soon lead to a long weekend every week, or how most of the world is becoming a far more tolerant place. None of the above means the world isn't facing some grave challenges, nor that we ought to become complacent. In fact, "optimism" isn't quite the right word for how we should feel. Optimism can lead to a kind of merry apathy, a blind faith that good will prevail of its own accord. In that way, a fatalistic optimism can be as dangerous as apathetic pessimism. A better term is one that sadly doesn't receive nearly enough use these days: "meliorism." This is the notion that the world is far from perfect, but we can improve it through our own actions. It reminds us that if we let the world unfold without our intervention, things will probably get worse, so we must act to change it for the better. So instead of looking at the headlines and losing hope, we can look at them as challenges to be solved - challenges that can and will eventually be solved. After all, if we have been able to reduce amount of violence in the world, lift so many people out of poverty and do the countless other wondrous things that have made the world as it is today, then history is on our side.

### AT: Djordjevic 98

His sustainability evidence is a joke. Djordjevic is an undergraduate at UC Irvine writing a paper for college. The article is almost 20 years old and cites zero empirical evidence.

## Industrial Ag

### Soil Erosion

#### High yield ag is key to solve soil erosion; the impact is extinction

Avery 95

Dennis Avery, Director of & Senior Fellow at Center for Global Food Issues, former agriculture analyst for the State Department, and former staff member of the President's National Advisory Commission on Food and Fiber, “SAVING THE PLANET WITH NO-TILL, HIGH-YIELD FARMING,” before the Manitoba/North Dakota Zero Tillage Farmer's Association, January 24, 1995. http://www.mandakzerotill.org/books/proceedings/Proceedings%2019 95/highyield.html)

**The true** long-term **threat to human existence is soil erosion.** Doubling the yields on the best and safest farmland cuts soil erosion by more than half. And now herbicides and conservation tillage are letting us cut those low rates of soil erosion by 65 to 98 percent. It should now be possible to build topsoil and soil tilth on much of the world's best farmland -- while carrying on intensive high-yield farming. For 10,000 years, man has accepted soil erosion as the long-term price for having a dependable food supply in the short run. In the U.S. alone, the Conservation 'Technology Information Center reports roughly 100 million acres using conservation tillage systems. The systems are continuing their rapid spread through such widely-differing agricultures as Western Europe, Brazil, Australia and Kenya. We are doing this with chemicals. Herbicides are the first alternative mankind has ever developed to "bare-earth" farming. These herbicide-based farming systems are **the most sustainable farming systems ever devised.** They save more soil, even as they encourage more earthworms, more soil microbes and more soil tilth than plowing. Nor do the herbicides present any significant threat to wildlife or people from runoff or residues. (Atrazine, the most widely-used "suspicious" herbicide in the world has just had its safety rating raised seven-fold by the U.S. Environmental Protection Agency.) In addition, high-yield farmers are in the midst of developing "no-leach" farming. Tractors and applicator trucks for farm chemicals now can be guided by global positioning satellites and radar within inches of their true positions across the field, while microprocessors vary the application rates of chemicals and seed seven times a second based on intensive soil sampling, soil hydrology, slope, plant population and nearness to waterways. It is now practical to manage our farms by the square yard, rather than in chunks of 10 or 100 hectares. High-yield farming must now claim environmental credit for both the acres not plowed. and for the soil erosion not suffered.

### Turns Water Pollution

#### Studies of Clean Water programs show small farms literally cannot afford to protect the environment

Osmond and Gale 95

Deanna L. Osmond and Judith A. Gale (Water Quality Extension Specialists, North Carolina State University Water Quality Group). “Farmer Participation in Solving the Nonpoint Source Pollution Problem: The Rural Clean Water Program Experience.” March 1995. <http://www.water.ncsu.edu/watershedss/info/brochures/eight.html>

The success or failure of any agricultural nonpoint source pollution control project depends on the participation of many landowners or farm operators. These producers must install or utilize land-based treatments, or best management practices (BMPs), that minimize the movement of agricultural pollutants such as sediment, nutrients, and pesticides to water resources. The degree of producer participation necessary to protect or remediate water quality will depend not only on the total number of land users employing BMPs in the watershed, but also on several other factors: the location of the producers' farms in the watershed, the types of BMPs selected, the extent of BMP implementation, and the type and severity of the water quality problem. The first phase in a nonpoint source (NPS) pollution control project is to accurately identify and clearly document the water quality problem, the specific pollutant(s), and the sources of the pollutant(s). Based on the water quality problem assessment, the critical area (land area or areas contributing disproportionately to the water quality problem) should be identified. High-priority project participants are those producers who farm or raise livestock in the critical area of the watershed. A primary goal of any voluntary NPS pollution control project is to engage a sufficient number of potential participants in the project. The Rural Clean Water Program (RCWP), a nationally recognized nonpoint source pollution control program conducted between 1981 and 1995, established a target voluntary producer participation rate of 75%. Many valuable lessons were learned from the RCWP about how to recruit and retain participants in voluntary NPS pollution control projects. The information presented in this fact sheet is based on these lessons learned. Farm Structure and Producer Attitudes and Attributes that Affect Project Outcome An extensive telephone survey of producers farming in the critical areas of the 21 RCWP projects was conducted to evaluate differences between farmers who chose to participate in the RCWP and those who did not (Gale et al., 1993). Farm structure, farm operator characteristics, and water quality awareness and attitudes were assessed. Participation in RCWP projects was highly correlated with strong economic indicators, such as comparatively larger total acreage farmed, higher gross farm sales, and greater property and farm equipment values. Producers who were employed off-farm, or who received only part of their income from agriculture, were less likely to participate in NPS pollution control projects than were farmers who worked solely on the farm and earned most of their income from agriculture. Water quality awareness and attitudes were also important in determining participation rates in the RCWP projects. Producers who were more aware of water pollution (in general, in the specific area, or on individual farms) participated in greater numbers than farmers who were less well informed. Producers who received most of their water quality and conservation information from government agencies and farm magazines were more likely to change agricultural practices that affected water quality than producers who did not receive information from these sources. Many of the results of the farm operator survey were similar to conclusions of previous studies evaluating factors that influence conservation. Farmers who run large-scale operations, are better educated and more willing to take risks, and have access to government information generally participate at a higher rate in conservation programs than producers without these characteristics. Although farm structure and producer characteristics were important factors in determining which farmers chose to participate in the RCWP projects, external incentives also affected participation. Incentives To Producer Participation Economic Factors Financial incentives are extremely important, and may be the most important factor, in obtaining voluntary implementation of BMPs. Financial incentives for voluntary environmental compliance include cost-share funds, tax relief, payment transfers, and government subsidies. The primary financial incentive in the RCWP projects was federal cost-share funding. Each producer could receive up to 75% of the cost of each recommended BMP implemented (up to a maximum per farm of $50,000). The cost-share rate for the Alabama RCWP project was originally set at 60%. Few farmers chose to participate until the cost-share rate was raised to 75%. Participation then increased to 100% of the producers in the critical area. A significant barrier to implementation of BMPs is poor economic status of producers. The farm operator survey (Gale et al., 1993) found a lower rate of participation among farmers who had relatively lower economic indicators. During the early 1980s, many farmers in Oregon were unable to participate in the Tillamook Bay RCWP project because high interest rates limited cash flow, making it difficult for farmers to pay their portion of the cost of installing BMPs. Another hindrance is the high cost of some BMPs, such as animal waste management systems. For many dairy farmers, the maximum cost-share payment of $50,000 was insufficient to make the construction of animal waste storage units economically feasible.

### Alt is Worse

#### Low-yield ag is the single largest threat to global biodiversity.

Avery 7

Dennis T. Avery (Director of the Center for Global Food Issues at the Hudson Institute), “How High-Yield Farming Saves Nature,” Society, (2007) 44:137-143

If the world’s farmers today got the yields they achieved in 1950, the world would need nearly **three times as much cropland** to produce today’s food supply. That would be about 15–16 million additional square miles of crops—**all** the **global forest area available today**. Every biologist who is worried about species extinction is worried **most** about lost wildlife habitat—especially forests and most of all the tropical forests. Without higher yields, we might indeed **lose millions of wild species** over the next 50 years. With continued investments in high-yield farming and forestry research, we might not have to lose any wildlands. But a much bigger commitment to research is required to ensure this result.

## Growth Solves Environment

### Empirics

#### Studies confirm; growth solves the environment

Carillo and Maietta, 2012:

(The Relationship Between Economic Growth And Environmental Quality: The Contributions Of Economic Structure And Agricultural Policies. Felicetta Carillo, National Institute Of Agricultural Economics At The University Of Naples. Ornella Maietta, Department of Economics At The University Of Naples. June 2012.)

The EKC relation shows that different stages of economic development have different impact on environment, indicating that as the per capita income (or per capita wealth) increases, the economy shows first an increase in pressure on the environment (in terms of more pollution and of more intensive use of natural resources), then, after at a certain level of income (called turning point), there is a trend reversal, which results in a virtuous cycle of improvement and of reduction of the economic pressure on the environmental resources. The EKC path has been originally observed for some phenomena of air pollution (particulates, SO2, NOX, CO2) and water (river water) since the ‘90s. Several studies have tested the EKC with a cross-country approach, using data on products from *General Environmental Monitoring System* (GEMS), which contains information on the contamination of air and water from the most common pollutants actually known (Dasgupta *et al*, 2002). Among those who have first estimated the EKC, Grossman and Krueger (1993) explain the relation by the *scale effect* of growth, that is increasing returns, associated to growth, make the technology more efficient and reduce the cost of pollution abatement; at the same time, the substitution effect make it possible to shift to cleaner and non-renewable resource saving techniques; finally, because of the composition effect of output, consumption of polluting products is reduced and the weight of the cleaner tertiary sector is increased. These models seem to suggest a path of laissez-faire (Andreoni e Levinson, 2001), that is the increasing income automatically will ensure the improvement of environmental quality.

### Mindset Shift Turn

#### Studies prove growth solves environment – It’s more likely to create a mindset shift than collapse

**Taylor 3**

Director of Natural Resource Studies 0at Cato Institute, Jerry Taylor, “Happy Earth Day? Thank Capitalism,” New York Sun, April 2 20032, http://www.cato.org/dailys/04-23-03-2.html

Earth Day is traditionally a day for the Left -- a celebration of government's ability to deliver the environmental goods and for threats about the parade of horribles that will descend upon us lest we rededicate ourselves to federal regulators and public land managers. This is unfortunate because it's businessmen -- not bureaucrats or environmental activists -- who deserve most of the credit for the environmental gains over the past century and who represent the best hope for a Greener tomorrow. Indeed, we wouldn't even have environmentalists in our midst were it not for capitalism. Environmental amenities, after all, are luxury goods. America -- like much of the Third World today -- had no environmental movement to speak of until living standards rose sufficiently so that we could turn our attention from simply providing for food, shelter, and a reasonable education to higher "quality of life" issues. The richer you are, the more likely you are to be an environmentalist. And people wouldn't be rich without capitalism. Wealth not only breeds environmentalists, it begets environmental quality. There are dozens of studies showing that, as per capita income initially rises from subsistence levels, air and water pollution increases correspondingly. But once per capita income hits between $3,500 and $15,000 (dependent upon the pollutant), the ambient concentration of pollutants begins to decline just as rapidly as it had previously increased. This relationship is found for virtually every significant pollutant in every single region of the planet. It is an iron law. Given that wealthier societies use more resources than poorer societies, such findings are indeed counterintuitive. But the data don't lie. How do we explain this? The obvious answer -- that wealthier societies are willing to trade-off the economic costs of government regulation for environmental improvements and that poorer societies are not -- is only partially correct. In the [US] United States, pollution declines generally predated the passage of laws mandating pollution controls. In fact, for most pollutants, declines were greater before the federal government passed its panoply of environmental regulations than after the EPA came upon the scene. Much of this had to do with individual demands for environmental quality. People who could afford cleaner-burning furnaces, for instance, bought them. People who wanted recreational services spent their money accordingly, creating profit opportunities for the provision of untrammeled nature. Property values rose in cleaner areas and declined in more polluted areas, shifting capital from Brown to Green investments. Market agents will supply whatever it is that people are willing to spend money on. And when people are willing to spend money on environmental quality, the market will provide it.

## Alt Fails

### Fascism

#### Transition fails and gets co-opted by right-wing takeover of the government which is a fascism DA to the aff

**Lewis 92**

Martin Lewis, prof in the School of the Environment and the Center for International Studies at Duke U, “Green Delusions”, p.170-171, 1992

While an explosive socioeconomic crisis in the near term is hardly likely the possibility certainly cannot be dismissed. Capitalism is an inherently unstable economic system, and periodic crises of some magintude are inevitable. An outbreak of jingoistic economic nationalism throughout the world, moreover, could quickly result in virtual economic collapse. Under such circumstances we could indeed enter an epoch of revolutionary social turmoil. Yet I believe that there are good reasons to believe that the victors in such a struggle would be radicals not of the left but rather of the right. The extreme left, for all its intellectual strength, notably lacks the kind of power necessary to emerge victorious from a real revolution. A few old street radicals may still retain their militant ethos, but today’s college professors and their graduate students, the core marxist contingent, would be ineffective. The radical right, on the other hand, would present a very real threat. Populist right-wing paramilitary groups are well armed and well trained, while establishment-minded fascists probably have links with the American military, wherein lies the greatest concentration of destructive power this planet knows. Should a crisis strike so savagely as to splinter the American center and its political institutions, we could well experience a revolutionary movement similar to that of Germany in the 1930s.

### \*\*\*Collapse Fails

#### \*\*\*Downturn kills the environment

**Biello 08**

David Biello, Editor for the Scientific American. “Is a Global Recession Good for the Environment?” 2008, http://www.scientificamerican.com/podcast/episode.cfm?id=is-a-global-recession-good-for-the-08-11-132

Times are tough when a millionaire oil man can't get a wind farm built. T. Boone Pickens backed off of his much ballyhooed mega-wind project in Texas this week, citing the declining cost of natural gas. Fossil fuel burning power plants are still too good of a deal to bother investing $2 billion into wind turbines. A bear market might seem like a boon for the environment: less overall economic activity, like manufacturing and driving, means less overall pollution. Right? Actually, as the Pickens example proves, global economic downturns take a toll on the environment by restrain[ing] economic activity that could improve the situation. But that's not all. Over-farming and drought led to 400,000 square kilometers of prime top soil blowing away in the wind in the 1930s, exacerbating, and exacerbated by, the Great Depression. And the economic crises that crippled the economies of southeast Asia in the 1990s also set in motion a rapid uptick in environmentally damaging pursuits such as illegal logging and cyanide fishing, according to the World Bank. Even as I speak, economic worries have prompted some European countries to begin backpedaling on their commitments to cut back on global warming pollution. So an economic downturn is no friend of the environment. Brother, can you spare a turbine?

## \*\*\*Veganism DA

### \*\*\*Link

#### \*\*\*Continued tech growth causes a shift to global veganism

Pearce 5

David Pearce (Transhumanist vegan British philosopher; Pearce has spoken at Oxford and Harvard and been published in The Economist and BBC Radio. In 1998, Pearce cofounded Humanity+ with Nick Bostrom.) THE PINPRICK ARGUMENT.” 2005. http://www.utilitarianism.com/pinprick-argument.html

Third, developments in single-celled protein technologies will soon enable us to grow genetically-engineered "vat food" that's at least as tasty as flesh from intact non-human animals. If so, then the process will presumably be scalable without limit. Critically, such vat-food will be cheaper. Given market economics, then on this scenario the factory farming "industry" will undergo world-wide collapse - or at least convert to the more efficient model. In fact there's a fair chance **we'll witness global veganism by the second half of the century.** The moral arguments for a cruelty-free diet will seem more cogent when their acceptance no longer demands renouncing the accustomed taste of some of our favourite foods. Elsewhere, Mother Nature, red-in-tooth-and-claw, won't disappear so swiftly. Yet at current rates of habitat destruction, no large mammals will survive in the wild later this century. Vestiges of old order may remain elsewhere in the living world; but the residual forms of suffering, if any, that will be permitted in our wildlife parks or the deep oceans are far from certain. If we conclude that unpleasant states of consciousness are morally unacceptable, then genetic engineering, quantum computing and nanorobotics can be harnessed to redesign the global ecosystem and rewrite the vertebrate genome. The exponential growth of computing power to run complex simulations may eventually make such ecosystem transformation trivial. A technologically and ethically **advanced civilisation can eradicate suffering in all sentient life.**

### \*\*\*Impact

#### \*\*\*Livestock suffering is on the magnitude of eight human extinction events every year

ADAPTT 11

ADAPTT [Animals Deserve Absolute Protection Today and Tomorrow]. “More Than 150 Billion Animals Slaughtered Each Year.” July 18, 2011. http://www.adaptt.org/killcounter.html

Data for the Kill Counter are based on worldwide animal slaughter statistics culled from the Food and Agriculture Organization of the United Nations for the year 2003. According to these statistics, about **53 billion** land animals are **slaughtered annually** worldwide. (It should be noted that at the time the numbers were compiled, they were the minimum numbers of animals killed each year. The actual numbers may be significantly greater insofar as some countries or territories either did not report, or deliberately excluded, some statistics.) Of the more than 200 countries researched, the top three—the United States, China, and Brazil—consume a staggering 46 percent of these animals as food. The United States alone consumes roughly **20 percent of all animals slaughtered for food** even though it contains less than five percent of the world's population. It's important to note that, since most of the available data are now eight years old as of 2011, these estimates are extremely conservative. It is now quite likely that in many of the categories noted, the current kill rates are as much as 10 percent higher than what is indicated here. As soon as more accurate statistics become available, ADAPTT pledges to update its Kill Counter accordingly.

# War

## General

### Transition Wars – Newest Ev

#### Decline causes lash out and global war; old evidence doesn’t assume new international tension

Harold James 14, Professor of history at Princeton University’s Woodrow Wilson School who specializes in European economic history, 7/2/14, “Debate: Is 2014, like 1914, a prelude to world war?,” <http://www.theglobeandmail.com/globe-debate/read-and-vote-is-2014-like-1914-a-prelude-to-world-war/article19325504/>

As we get closer to the centenary of Gavrilo Princip’s act of terrorism in Sarajevo, there is an ever more vivid fear: it could happen again. The approach of the hundredth anniversary of 1914 has put a spotlight on the fragility of the world’s political and economic security systems. At the beginning of 2013, Luxembourg’s Prime Minister Jean-Claude Juncker was widely ridiculed for evoking the shades of 1913. By now he is looking like a prophet. By 2014, as the security situation in the South China Sea deteriorated, Japanese Prime Minister Shinzo Abe cast China as the equivalent to Kaiser Wilhelm’s Germany; and the fighting in Ukraine and in Iraq is a sharp reminder of the dangers of escalation. Lessons of 1914 are about more than simply the dangers of national and sectarian animosities. The main story of today as then is the precariousness of financial globalization, and the consequences that political leaders draw from it. In the influential view of Norman Angell in his 1910 book The Great Illusion, the interdependency of the increasingly complex global economy made war impossible. But a quite opposite conclusion was possible and equally plausible – and proved to be the case. Given the extent of fragility, a clever twist to the control levers might make war easily winnable by the economic hegemon. In the wake of an epochal financial crisis that almost brought a complete global collapse, in 1907, several countries started to think of finance as primarily an instrument of raw power, one that could and should be turned to national advantage. The 1907 panic emanated from the United States but affected the rest of the world and demonstrated the fragility of the whole international financial order. The aftermath of the 1907 crash drove the then hegemonic power – Great Britain - to reflect on how it could use its financial power. Between 1905 and 1908, the British Admiralty evolved the broad outlines of a plan for financial and economic warfare that would wreck the financial system of its major European rival, Germany, and destroy its fighting capacity. Britain used its extensive networks to gather information about opponents. London banks financed most of the world’s trade. Lloyds provided insurance for the shipping not just of Britain, but of the world. Financial networks provided the information that allowed the British government to find the sensitive strategic vulnerabilities of the opposing alliance. What pre-1914 Britain did anticipated the private-public partnership that today links technology giants such as Google, Apple or Verizon to U.S. intelligence gathering. Since last year, the Edward Snowden leaks about the NSA have shed a light on the way that global networks are used as a source of intelligence and power. For Britain’s rivals, the financial panic of 1907 showed the necessity of mobilizing financial powers themselves. The United States realized that it needed a central bank analogous to the Bank of England. American financiers thought that New York needed to develop its own commercial trading system that could handle bills of exchange in the same way as the London market. Some of the dynamics of the pre-1914 financial world are now re-emerging. Then an economically declining power, Britain, wanted to use finance as a weapon against its larger and faster growing competitors, Germany and the United States. Now America is in turn obsessed by being overtaken by China – according to some calculations, set to become the world’s largest economy in 2014. In the aftermath of the 2008 financial crisis, financial institutions appear both as dangerous weapons of mass destruction, but also as potential instruments for the application of national power. In managing the 2008 crisis, the dependence of foreign banks on U.S. dollar funding constituted a major weakness, and required the provision of large swap lines by the Federal Reserve. The United States provided that support to some countries, but not others, on the basis of an explicitly political logic, as Eswar Prasad demonstrates in his new book on the “Dollar Trap.” Geo-politics is intruding into banking practice elsewhere. Before the Ukraine crisis, Russian banks were trying to acquire assets in Central and Eastern Europe. European and U.S. banks are playing a much reduced role in Asian trade finance. Chinese banks are being pushed to expand their role in global commerce. After the financial crisis, China started to build up the renminbi as a major international currency. Russia and China have just proposed to create a new credit rating agency to avoid what they regard as the political bias of the existing (American-based) agencies. The next stage in this logic is to think about how financial power can be directed to national advantage in the case of a diplomatic tussle. Sanctions are a routine (and not terribly successful) part of the pressure applied to rogue states such as Iran and North Korea. But financial pressure can be much more powerfully applied to countries that are deeply embedded in the world economy. The test is in the Western imposition of sanctions after the Russian annexation of Crimea. President Vladimir Putin’s calculation in response is that the European Union and the United States cannot possibly be serious about the financial war. It would turn into a boomerang: Russia would be less affected than the more developed and complex financial markets of Europe and America. The threat of systemic disruption generates a new sort of uncertainty, one that mirrors the decisive feature of the crisis of the summer of 1914. At that time, no one could really know whether clashes would escalate or not. That feature contrasts remarkably with almost the entirety of the Cold War, especially since the 1960s, when the strategic doctrine of Mutually Assured Destruction left no doubt that any superpower conflict would inevitably escalate. The idea of network disruption relies on the ability to achieve advantage by surprise, and to win at no or low cost. But it is inevitably a gamble, and raises prospect that others might, but also might not be able to, mount the same sort of operation. Just as in 1914, there is an enhanced temptation to roll the dice, even though the game may be fatal.

### AT: K-Waves

#### His evidence relies on K-wave theory; that’s junk science

North 9 (Gary, Economic Analyst – Austrian School, PhD in History, “The Myth of the Kondratieff Wave,” 6-27, <http://www.lewrockwell.com/north/north725.html>)

Pugsley = American conservative libertarian political and economics commentator, lecturer, and New York Times bestselling author

Kondratieff had at most two and a half cycles in his two papers. That number was available for only four data series. Of the 36 data series, he could find evidence of cycles in only 11 of them. The monetary series and the real series correlated in only 11 of 21 series, all short. Pugsley then cited extensively from an article by C. Van Ewijk of the University of Amsterdam (The Economist, Nov. 3, 1981). Van Ewijk noted that Kondratieff followed no consistent methodology in choosing the types of trend curves that he selected for different data sources. Kondratieff used various statistical techniques to smooth the curves to make them appear as long waves. "In case after case, no wave could be identified." He used price data, but these did not correlate with the actual economic output of the four economies that he studied. Then the waves that he presented were further "idealized" by whoever created the chart that has circulated ever since. Pugsley noted: "The upward movement of prices from 1933 to the present has already spanned fifty years, which is supposed to be the average length of a complete cycle." So far, price inflation has extended for about 75 years. Yet the deflationists are still predicting long-term, severe price deflation, and some of them invoke the Kondratieff wave to prove their assertion. Pugsley concluded: In **not one case** does the evidence corroborate the existence of the wave. Prices and output are not directly related – if anything they are inversely related. The forty-five to sixty-year period of the wave is only partially evident in the nineteenth century, and then only in the price series. Price moves in the twentieth century do not correspond to this periodicity, as claimed by long-wave proponents. There is absolutely **no statistical correlation** between series of real variables such as production and consumption, and monetary series such as prices and interest rates. Production and prices of the four countries studied do not statistically correlate; thus there is no wave operating coincidentally in the industrialized countries. In other words, Kondratieff's hypothesis is simply not supported by any evidence. The long wave exists only in the minds of a few misguided analysts, but not in the real world. It is pure hokum.

### Markets Solve War

**Markets solve war**

**Bandow 5**

<Doug Bandow, a senior fellow at the Cato Institute, REASON ONLINE, “A Capitalist Peace?”, October 26, 2005 (http://www.reason.com/news/show/32985.html accessed: June 26, 2009)>

There are a number of reasons why economics appears to trump politics. The shift from statist mercantilism to high-tech capitalism has transformed the economics behind war. Markets generate economic opportunities that make war less desirable. Territorial aggrandizement no longer provides the best path to riches. Free-flowing capital markets and other aspects of globalization simultaneously draw nations together and raise the economic price of military conflict, because the political destabilization resulting from war deters profitable investment and trade. Moreover, sanctions, which interfere with economic prosperity, provides a coercive step short of war to achieve foreign policy ends.

### \*\*\*AT: Historical Examples, etc.

#### \*\*\*Domestic and international unrest are converging for the first time in 300 years, which means downturn is uniquely likely to cause war now, and past empirics don’t apply

Martin Armstrong 14, the former chairman of Princeton Economics International Ltd, Cited by Greg Hunter, “Violent War Cycles-Global Economic Decline-Martin Armstrong,” 9-14-14, <http://usawatchdog.com/violent-war-cycles-global-economic-decline-martin-armstrong-4/>, DOA:11-11-14, y2k

Global economic expert Martin Armstrong says **two** big **violent cycles** are happening for the **first time in 300 years**. Domestic and international unrest is **consuming** **the world**. Armstrong contends, “Both of these cycles are converging at the same time, and **this hasn’t happened since the 1700’s.** That was the American Revolution, the French Revolution and etcetera. That was the revolution against monarchies, so to speak. This is not just Ukraine, Russia and the U.S. You have the Middle East going crazy. Gaza is starting up again with Israel. You go over to Asia and you have civil unrest in Thailand, and the overwhelming part of the population in China wants to go to war with Japan as payback.” **Why all the violence around the world?** Armstrong contends, “When everyone is fat and happy, nobody cares. Everybody lives together peacefully. **When you turn the economy down**, that’s when **people** start getting mad. They lost something, and they want to **blame somebody else** for whatever injury they suffered. We look at the entire world . . . what you are looking at on a global scale is the emerging markets: China, Russia, South America, Brazil, South East Asia, their stock markets peaked in 2007. They have been in a declining economic trend . . . so you have the economic pressure building. This is what’s going on in Russia as well. We are making a serious mistake by thinking that Russia can’t fight. My sources say that they anticipated the sanctions on Putin would make the oligarchs turn against him and force him to back out. That’s not going to happen. We are going into a period of economic decline, and whenever that happens, **government needs an external enemy**.” So, when markets crashed in 2007, what did Congress do? They did investigations and went after Wall Street. They never admit it has anything to do with them. . . . If Putin were to back off, they would eat him for lunch. He would be overthrown within Russia.” On the subject of new sanctions from the U.S. and EU, Armstrong says, “Europe is already in an economic decline, and it is a very, very serious one. Even the IMF has come out and said there are major problems with deflation, which is what you get from a Great Depression, and that is really what the EU is going through. I don’t see any hope of the EU bottoming out before 2020. It’s going to get worse.” So, is this going to lead to war between NATO and Russia? Armstrong says, “That seems to be what’s happening.” On the Middle East, Armstrong charges, “The United States has made a complete mess of the Middle East. The real truth behind the Benghazi affair, that ambassador that was killed . . . he was effectively an arms dealer. They were providing all the arms in Libya to overthrow Gadhafi. When that was done, those same arms were sent to this group called ISIS who was against Syria. You have to realize that Saudi Arabia was really the one behind the funding of all of this. Why? They wanted a pipeline through Syria. The problem now is that everyone was trying to fund somebody else to do their dirty work, and now you have an Islamic State that is rising and it is taking territory from both sides.” On the direction of the price of gold, Armstrong predicts, “I personally think you are going to see gold emerge as a currency of the underground economy. It’s not a hedge against inflation, and we have done every study imaginable. So, why are countries like China buying all this gold? Armstrong says, “People are buying gold, not because they think it will be going up, but simply as a hedge against government.” On the recent strength of the U.S. dollar, Armstrong says, “The central banks only have the dollar, that’s it. It is the reserve currency. We had a former Obama economist who just came out a few days ago and said the risk to the United States is a strong dollar, and we should give up the reserve currency position. Why? Because they realize there is no other choice. What are you going to do, put your retirement money in rubles? How about Yuan? There is no place you can go. It’s only dollars.” So, is the dollar is not going to fall out of bed anytime soon? Armstrong says, “Not yet. You have to take the dollar up, and that will bring gold down short term. Also, as war begins to happen, you have to realize that capital flees from wherever conflict is. The more conflict you have in the Middle East and Europe, the more money is going to come this way (to the U.S.)” In closing, Armstrong gave an ominous prediction and said, “**The next decline** we will see **is going to be far worse than the last one**. Each one is building in intensity.”